



January 5, 2001

## ***EPA Region 7 TMDL Review Form***

***TMDL ID*** 5

***Water Body Name*** Little Muddy Creek and Tributary to Little Muddy Creek (bundled)

***Pollutant*** Temperature

***Tributary***

***Water Body ID*** 0856

***State*** MO

***HUC*** 1030010304000

***Basin***

***Submittal Date*** 12/11/00      ***Completion Date*** 1/2/01

***Approved*** Yes

***Submittal Letter:*** State submittal letter indicates final TMDL(s) for specific pollutant(s)/ water(s) were adopted by the state, and submitted to EPA for approval under section 303(d) of the Clean Water Act.

EPA received a submittal letter dated December 5, 2000 on December 11, 2000.

***Water Quality Standards Attainment:*** TMDL and associated allocations are set at levels adequate to result in attainment of applicable water quality standards.

MO's water quality standard for temperature is a maximum allowable temperature in stream of 90 degrees Fahrenheit and the stream temperature shall not raise or lower by 5 degrees Fahrenheit.

This water quality standard will be met by requiring the facility to meet an end of pipe permit limit of 90 degrees Fahrenheit. The main WQS that is violated is the 5 degree change in temperature. The actual target is the 5 degree F change applied at the beginning of the classified portion of the tributary.  
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***Numeric Target(s):*** Submittal describes applicable water quality standards, including beneficial uses, applicable numeric and/or narrative criteria.

The numeric target is Missouri's water quality standard for temperature: not to exceed 90 degrees F, and not to change the in-stream temperature of 5 degrees F.

***Source Analysis:*** Point, non point and background sources of pollutants of concern are described, including magnitude and location of the sources. Submittal demonstrates all significant sources have been considered.

There is one NPDES facility in the watershed. The permit for the Tyson's processing facility is in the process of being reissued to include temperature permit limits. The TMDL provides sufficient information to indicate there are no non point source contributions to the temperature impairment.

***Allocation:*** Submittal identifies appropriate waste load allocations for point, and load allocations for non point sources. If no point sources are present the waste load allocation is zero. If no non point sources are present, the load allocation is zero.

The allocations are made based on the WQS for Temperature.

***Waste Load Allocation:***

The Tyson permit is going to be reissued to include a temperature limit of 90 degrees F and not to change the in-stream temperature by more than 5 degrees F.

***Load Allocation:***

Any solar radiation that may be raising the temperature of the stream is believed to be insignificant compared to the effluent from the point source; therefore, the Load Allocation is zero.

***Margin of Safety:*** Submittal describes explicit and/or implicit margin of safety for each pollutant.

The MOS is based on conservative assumptions, and is implicit. The 5 degree change in temperature will apply to the tributary. Compliance will be measured at the beginning of the classified portion of the tributary and in Little Muddy Creek just upstream of the confluence with the tributary. If the standard is met at this point, then it will be met at all points down stream of the confluence since the water will continue to cool.

***Link Between Numeric Target(s) and Pollutant(s) of concern:*** Submittal describes relationship between numeric target(s) and identified pollutant sources. For each identified pollutant, the submittal describes analytical basis for conclusions, allocations and margin of safety that do not exceed the load capacity.

The TMDL target is the Missouri WQS for temperature.

***Seasonal Variation and Critical Conditions:*** Submittal describes the method for accounting for seasonal variation and critical conditions in the TMDL(s).

The WQS applies all year. The seasonal variation has been considered by considering data from various seasons and the determination of the critical season.

***Public Participation:*** Submittal describes public notice and public comment opportunity, and explains how the public comments were considered in the final TMDL(s).

This TMDL was public noticed from October 27 to November 26, 2000. Comments that were received by the state were incorporated into the final TMDL.

***Monitoring Plan for TMDL(s) Under Phased Approach:*** The TMDL identifies the monitoring plan and schedule for considering revisions to the TMDL(s) (where phased approach is used).

The facility will monitor the tributary near the classified portion and upstream of the confluence of Little Muddy Creek and it's tributary daily. The monitoring reports will be submitted to the state monthly.

***Reasonable Assurance:*** Reasonable assurance only applies when reductions in non point source loading is required to meet the prescribed waste load allocations.